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**MEMORANDUM FOR : Secretary of Defense
Director of Central Intelligence**

SUBJECT : Q-12 Ramjet Drone

1. Mr. C.L. Johnson of Lockheed Aircraft Corporation completed a preliminary design feasibility study of a Q-12 ramjet drone reconnaissance system. This included full-scale model anti-radar tests and some wind tunnel tests using a model Q-12 drone mounted on a model A-12 launch vehicle. Additional tests are still in progress. In addition, four camera contractors who were invited to submit proposals completed studies concerning a camera configuration for a Q-12 reconnaissance system. The reports have been reviewed by the Deputy Director (Research), CIA, and the Director, National Reconnaissance Organization, and the Q-12 ramjet drone reconnaissance system is deemed to be technically feasible.





2. The Q-12 ramjet drone is an unmanned reconnaissance vehicle utilizing a ramjet engine already developed and

order to reduce vulnerability, a higher speed and altitude would be desirable but not feasible with presently-developed reliable engines. Upon completion of a mission the camera payload and inertial navigation system will be ejected and an air-parachute recovery employed, similar to the DISCOVERER program system. The aircraft structure embodies A-12 anti-radar materials, and full-scale model tests indicate the radar cross section to be presently comparable to the levels achieved by the A-12 vehicle with the possibility of further improvement during the development. The most promising camera proposal for the Q-12 drone submitted by Hycon Manufacturing Company forecasts an achievable ground resolution design goal of 1-1/2 feet to 2 feet at operational altitudes.

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25X1 3. The present preliminary Lockheed proposal for twenty drone aircraft, including engines and modification costs for two A-12 launch aircraft, will cost a minimum of at least . The four camera proposals have been evaluated, and it is believed the Hycon proposal is the most satisfactory from the point of view of cost, time scale and technical feasibility and quality. The preliminary estimate for ten such cameras is . The present approved National Reconnaissance Program has  in FY 1963 and  in FY 1964 which should be adequate to handle this program. In light of all these facts, it is recommended that -

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a. approval be given for proceeding with the Q-12 drone program as described above; and

b. the DOD program for advanced ramjet development should be exploited with the aim of providing Mach 4 performance for possible follow-on vehicles.

HERBERT SCOVILLE, JR.
Deputy Director
(Research)

CONCUR:

Director, National Reconnaissance Organization



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John Parangosky : C/DD/OSA : ☐ (1 Feb 1963)

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TO:		DATE
DNRO		2/6/63
ROOM NO.	BUILDING	
REMARKS:		
<p>Joe - If you concur on this, we should arrange a briefing of Sec/Def and DCL</p> <p>H. Scoville, Jr.</p>		
FROM:		
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